

MAY 13 2004

## 9. 510(K) SUMMARY OF SAFETY AND EFFECTIVENESS

This summary of safety and effectiveness information is being submitted in accordance with the requirements of The Safety Medical Devices Act of 1990 (SMDA 1990) and 21 CFR Part 807.92.

Assigned 510(k) Number: K040811

Date of Summary Preparation: March 19, 2004

Manufacturer: Pharmacia Deutschland GmbH,  
Diagnostics Division  
Munzinger Strasse 7  
D-79111 Freiburg, Germany

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Device Name: Varelisa® ssDNA Antibodies

Common Name: ssDNA antinuclear antibody  
immunological test system

### Classification

<u>Product Name</u>	<u>Product Code</u>	<u>Class</u>	<u>CFR</u>
Varelisa® ssDNA Antibodies	LJM	II	866.5100

### Substantial Equivalence to

INOVA QUANTA Lite™ ssDNA

### **Intended Use Statement**

The Varelisa ssDNA Antibodies EIA kit is designed for the semiquantitative and qualitative determination of anti-single stranded DNA (ssDNA) autoantibodies in serum or plasma. In conjunction with the Varelisa dsDNA Antibodies kit it assists in the diagnosis of systemic lupus erythematosus (SLE) and certain other rheumatic diseases. The test is not definitive in isolation but has to be seen as one parameter in a multicriterion diagnostic process.

### **General Description of the Device**

Varelisa ssDNA Antibodies is an indirect noncompetitive enzyme immunoassay for the semiquantitative and qualitative determination of ssDNA antibodies in human serum or plasma. Antibodies specific for ssDNA present in the patient sample bind to the antigen. The assay should be used in combination with the Varelisa dsDNA Antibodies.

The test kit contains microplate strips coated with synthetic ssDNA, calibrators, positive and negative controls, enzyme-labeled conjugate, substrate and substrate stop solution, Sample Diluent and wash buffer.

### **Varelisa® ssDNA Antibodies Test Principle**

Varelisa ssDNA Antibodies is an indirect noncompetitive enzyme immunoassay for the semiquantitative and qualitative determination of ssDNA antibodies in human serum or plasma. The wells of a microtiterplate are coated with synthetic ssDNA. Antibodies specific for ssDNA present in the patient sample bind to the antigen.

In a second step the enzyme labeled second antibody (conjugate) binds to the antigen-antibody complex which leads to the formation of an enzyme labeled conjugate-antibody-antigen complex. The enzyme labeled antigen-antibody complex converts the added substrate to form a colored solution.

The rate of color formation from the chromogen is a function of the amount of conjugate complexed with the bound antibody and thus is proportional to the initial concentration of the respective antibodies in the patient sample.

### **Device Comparison**

Both assays (the predicate and the new device) are indirect noncompetitive enzyme immunoassays for the semiquantitative and qualitative determination of IgG antibodies against ssDNA in serum. Both assays recommend the same sample dilutions and use comparable enzyme-linked conjugates and antigens. For evaluation of the assay both recommend to use a compatible dsDNA kit from the corresponding manufacturer and give comparable interpretations of the result. In accordance to the relevant scientific literature both assays state in the Intended Use, that the measuring of the antibodies against ssDNA provides aid in the diagnosis of SLE and other rheumatic diseases.

A difference between both assays is that the predicate device is only recommended for use in serum specimen while the new device is outlined for use with serum and plasma.

### **Laboratory equivalence**

The comparability of QUANTA Lite™ ssDNA and Varelisha ssDNA Antibodies is supported by a data set including

- results obtained within a comparison study analyzing positive, equivocal and negative sera.
- results obtained for externally defined Calibrators.
- results obtained for samples from apparently healthy subjects (normal population).

The data show that the assay performs as expected from the medical literature. Furthermore the performance data show that the device is suitable for serum and plasma samples.

In summary, all available data support that the new device, PHARMACIA Varelisha ssDNA Antibodies Assay is substantially equivalent to the predicate device, INOVA QUANTA Lite™ ssDNA Assay, and that the new device performs according to state-of-the-art expectations.



DEPARTMENT OF HEALTH & HUMAN SERVICES

MAY 13 2004

Food and Drug Administration  
2098 Gaither Road  
Rockville MD 20850

Michael Linss, Ph.D.  
Manager, Compliance & Quality  
Pharmacia Deutschland GMBH  
Munzinger Strasse 7  
Freiburg,  
Germany D 79111

Re: k040811  
Trade/Device Name: Varelisa® ssDNA Antibodies  
Regulation Number: 21 CFR 866.5100  
Regulation Name: Antinuclear antibody immunological test system  
Regulatory Class: Class II  
Product Code: LRM  
Dated: March 19, 2004  
Received: March 29, 2004

Dear Dr. Linss:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

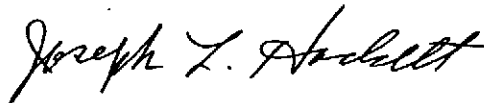
If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in Title 21, Code of Federal Regulations (CFR), Parts 800 to 895. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Parts 801 and 809); and good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820).

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If you desire specific information about the application of labeling requirements to your device, or questions on the promotion and advertising of your device, please contact the Office of In Vitro Diagnostic Device Evaluation and Safety at (301) 594-3084. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/dsma/dsmamain.html>.

Sincerely yours,

A handwritten signature in black ink, reading "Joseph L. Hackett". The signature is written in a cursive style with a large, stylized "J" and "H".

Joseph L. Hackett, Ph.D.  
Acting Director  
Division of Immunology and Hematology Devices  
Office of In Vitro Diagnostic Device Evaluation and Safety  
Center for Devices and Radiological Health

Enclosure

**Varelisa® ssDNA Antibodies – New Device**  
**510(k) Submission**  
**Section 1. Indications for Use Statement**

510(k) Number: K040811

Device Name: **Varelisa® ssDNA Antibodies**

**Intended Use Statement**

The Varelisa ssDNA Antibodies EIA kit is designed for the semiquantitative and qualitative determination of anti-single stranded DNA (ssDNA) autoantibodies in serum or plasma. In conjunction with the Varelisa dsDNA Antibodies kit it assists in the diagnosis of systemic lupus erythematosus (SLE) and certain other rheumatic diseases. The test is not definitive in isolation but has to be seen as one parameter in a multicriterion diagnostic process.

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PAGE IF NEEDED)

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Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use ✓ OR Over-The-Counter Use \_\_\_\_\_

(Per 21 CFR 801.109)

Maria Chan  
Division Sign-Off

Office of In Vitro Diagnostic Device  
Evaluation and Safety

510(k) K040811